

Title (en)
REACTION APPARATUS AND METHOD FOR PRODUCING AN OXYGEN-CONTAINING ORGANIC COMPOUND

Title (de)
REAKTIONSAPPARAT UND VERFAHREN ZUR HERSTELLUNG EINER SAUERSTOFFENTHALTENDEN ORGANISCHEN KOMPONENTE

Title (fr)
APPAREIL REACTIONNEL ET METHODE POUR PRODUIRE UN COMPOSE ORGANIQUE COMPORTANT DE L'OXYGENE

Publication
EP 1357103 A1 20031029 (EN)

Application
EP 01273197 A 20011227

Priority

- JP 0111542 W 20011227
- JP 2001000403 A 20010105
- JP 2001088282 A 20010326

Abstract (en)
A method for carrying out a reaction of one substance capable of being activated by a catalyst with another substance capable of reacting with said one substance activated, characterized in that the substance capable of being activated is activated by passing the substance through a diaphragm type catalyst and the reaction is thus performed in one reaction step; a method for producing an aromatic alcohol utilizing the above method; and a reaction apparatus suitable for these reactions. In the method, one substance is activated by passing through a diaphragm type catalyst and an objective reaction is carried out by using the activated substance, and the reaction can be performed in one reaction step and with safety. Moreover, the contact of the above activated substance with a compound to be reacted therewith can be freely controlled, and therefore, over-reaction can be prevented and an objective product can be produced in high yield. The method is thus markedly advantageous from an economical view point as a commercial process for producing oxygen-containing organic compounds such as an aromatic alcohol, a ketone, an aldehyde, a carboxylic acid and an epoxide.

IPC 1-7
C07C 45/34; C07C 45/35; C07C 47/22; C07C 49/08; C07C 49/403; C07C 29/50; C07C 35/08; C07C 37/58; C07C 39/04; C07C 39/07; C07C 39/14; C07B 61/00; B01J 19/24; C07D 301/08; C07D 301/10; C07D 303/04; C07D 213/63; C07D 309/32; C07D 307/58; C07D 333/32; C07D 207/36

IPC 8 full level
B01J 19/24 (2006.01); B01J 8/00 (2006.01); B01J 10/00 (2006.01); B01J 12/00 (2006.01); B01J 14/00 (2006.01); B01J 23/44 (2006.01); B01J 35/06 (2006.01); C07C 29/50 (2006.01); C07C 35/08 (2006.01); C07C 37/58 (2006.01); C07C 37/60 (2006.01); C07C 39/04 (2006.01); C07C 39/07 (2006.01); C07C 39/14 (2006.01); C07C 45/33 (2006.01); C07C 45/34 (2006.01); C07C 45/35 (2006.01); C07C 45/36 (2006.01); C07C 45/40 (2006.01); C07C 47/22 (2006.01); C07C 49/08 (2006.01); C07C 49/403 (2006.01); C07D 213/63 (2006.01)

CPC (source: EP US)
B01J 8/009 (2013.01 - EP US); B01J 10/007 (2013.01 - EP US); B01J 12/007 (2013.01 - EP US); B01J 14/005 (2013.01 - EP US); B01J 19/2475 (2013.01 - EP US); B01J 23/44 (2013.01 - EP US); B01J 35/59 (2024.01 - EP US); C07C 29/50 (2013.01 - EP US); C07C 37/58 (2013.01 - EP US); C07C 37/60 (2013.01 - EP US); C07C 45/33 (2013.01 - EP US); C07C 45/34 (2013.01 - EP US); C07C 45/35 (2013.01 - EP US); C07C 45/36 (2013.01 - EP US); B01J 2219/00063 (2013.01 - EP US); B01J 2219/00094 (2013.01 - EP US); B01J 2219/00099 (2013.01 - EP US); C07C 2601/14 (2017.04 - EP US); Y02P 20/52 (2015.11 - EP US)

C-Set (source: EP US)
1. **C07C 45/35 + C07C 49/08**
2. **C07C 29/50 + C07C 35/36**
3. **C07C 45/35 + C07C 47/22**
4. **C07C 29/50 + C07C 35/08**
5. **C07C 37/58 + C07C 39/04**
6. **C07C 37/58 + C07C 39/07**
7. **C07C 37/58 + C07C 39/14**
8. **C07C 37/60 + C07C 39/04**
9. **C07C 37/60 + C07C 39/07**
10. **C07C 37/60 + C07C 39/14**

Cited by
US8304564B2; US7572428B2; WO2006033474A1

Designated contracting state (EPC)
CH DE FR GB IT LI NL

DOCDB simple family (publication)
EP 1357103 A1 20031029; EP 1357103 A4 20060426; EP 1357103 B1 20130220; CA 2434162 A1 20020718; CA 2434162 C 20100202; US 2004110995 A1 20040610; US 6911563 B2 20050628; WO 02055465 A1 20020718

DOCDB simple family (application)
EP 01273197 A 20011227; CA 2434162 A 20011227; JP 0111542 W 20011227; US 45162403 A 20031210